

In the Claims:

Please amend the Claims to read as follows:

1 1. (Currently amended) A method of controlling pulsed AC power that is being
2 supplied to a load wherein the AC pulsed power has a waveform in which
3 ~~alternating positive and negative~~ power segments are separated by off segments
4 between an end of each said power segment and a commencement of a succeeding
5 said power segment, and wherein said waveform is applied across a pair of load
6 conductors and said load produces a reverse emf pulse on said load conductors at
7 the commencement of at least certain ones of the power segments, comprising:
8 -- (a) detecting, between said load conductors during application thereto of said
9 waveform, the magnitude of the reverse emf pulse at the commencement of
10 at least certain ones of said power segments; and
11 -- (b) adjusting the applied AC pulsed power being applied to the load based on
12 the detected magnitude of the reverse emf pulse.

1 2. (Original) The method according to Claim 1 wherein said detecting the
2 magnitude includes detecting the peak voltage of said reverse emf pulse.

1 3. (Original) The method according to Claim 2 wherein said detecting the
2 magnitude includes detecting the width of said reverse emf pulse.

1 4. (Currently amended) A method of controlling pulsed AC power that is supplied
2 to a load wherein the AC pulsed power has a waveform in which ~~alternating~~

3 ~~positive and negative~~ power segments are separated by off segments between an
4 end of each said power segment and a commencement of a succeeding said power
5 segment, and wherein said load produces a reverse emf pulse at the
6 commencement of at least certain ones of the power segments such that there is a
7 notch defined between the reverse emf pulse and the following power segment,
8 comprising:

- 9 -- (a) detecting the magnitude of the notch between the reverse emf pulse and the
10 associated power segment; and
11 -- (b) adjusting the applied AC power being applied to the load based on the
12 detected magnitude of said notch.

1 5. (Original) The method according to Claim 4 wherein said detecting the
2 magnitude includes detecting the voltage depth of said notch.

1 6. (Currently amended) The method according to Claim ~~1~~ 4 wherein said
2 detecting the magnitude includes detecting the width of said notch.

Please add:

1 7. (New) The method according to Claim 1 wherein said waveform is an AC
2 power waveform wherein the power segments include positive and negative power
3 segments with said off segments appearing between successive ones of said power
4 segments.

- 1 8. (New) The method according to Claim 4 wherein said waveform is an AC
- 2 power waveform wherein the power segments include positive and negative power
- 3 segments with said off segments appearing between successive ones of said power
- 4 segments.